

Transdisciplinary Co-Production of Knowledge: a Short Introduction



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applied
integrative
practice
research • inclusive
learning participatory
involvement
exchange research
transdisciplinary
oriented practitioners engagement researchers
coproduction stakeholders
interdisciplinary knowledge
codesign

Transdisciplinarity as a New Research Strategy for Sustainability Science

- > “... seeks *to understand* the fundamental character of interactions between nature and society and *to encourage* those interactions along more sustainable trajectories.
- > Such an integrated, place-based science will require new research strategies (...). Sustainability science needs to be (...) reconnected to the political agenda for sustainable development”.

Kates et al. 2001 (Science)

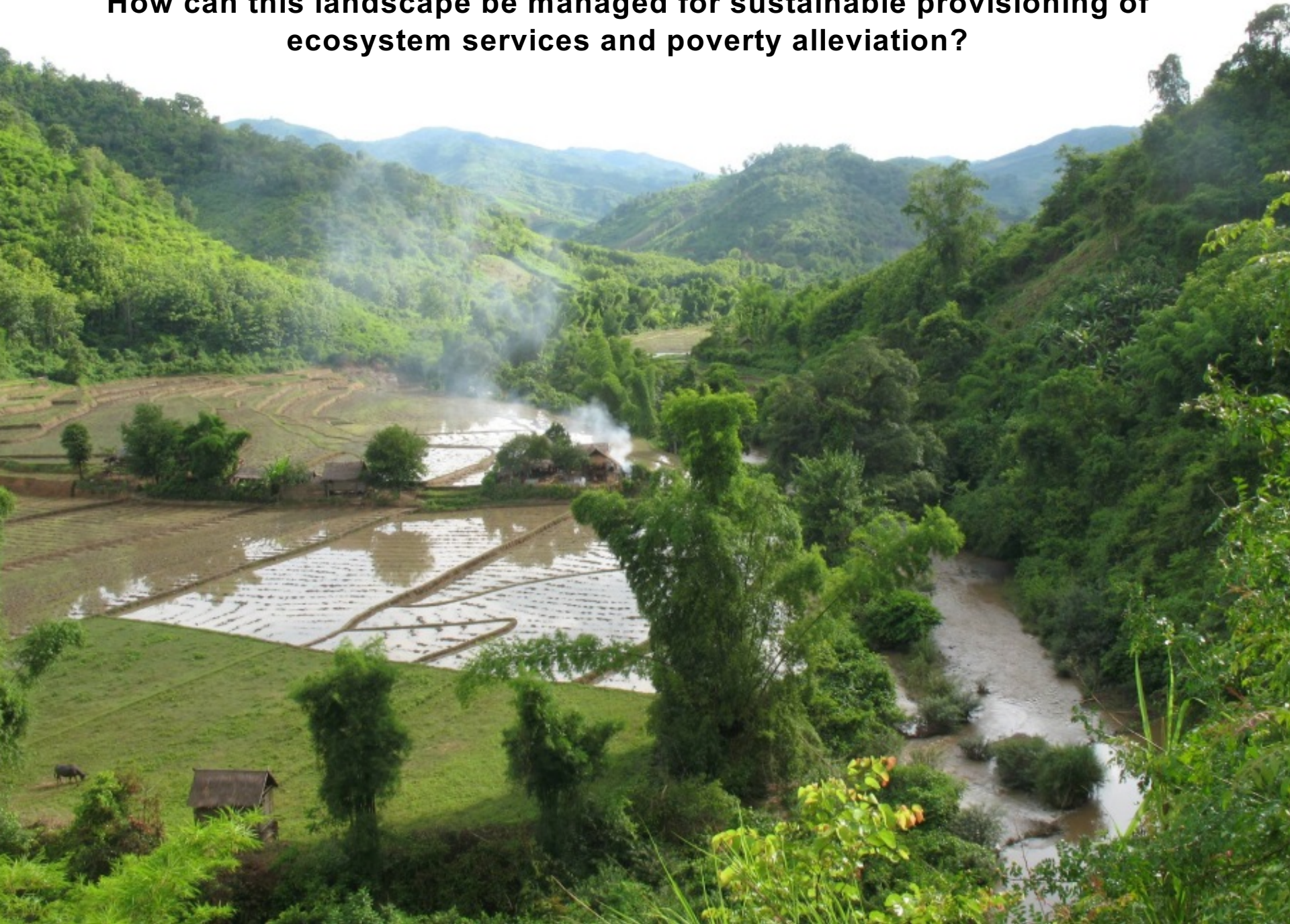
When is Transdisciplinary Research Needed?

> When searching for solutions to societal problems/ aiming to encourage sustainability transformations with a high degree of


complexity,
uncertainty, and
controversy.

Schneider (2015), Pohl and Hirsch Hadorn (2007), Rist
et al. (2007)

How can this landscape be managed for sustainable provisioning of ecosystem services and poverty alleviation?



How can this landscape be managed in a sustainable way?



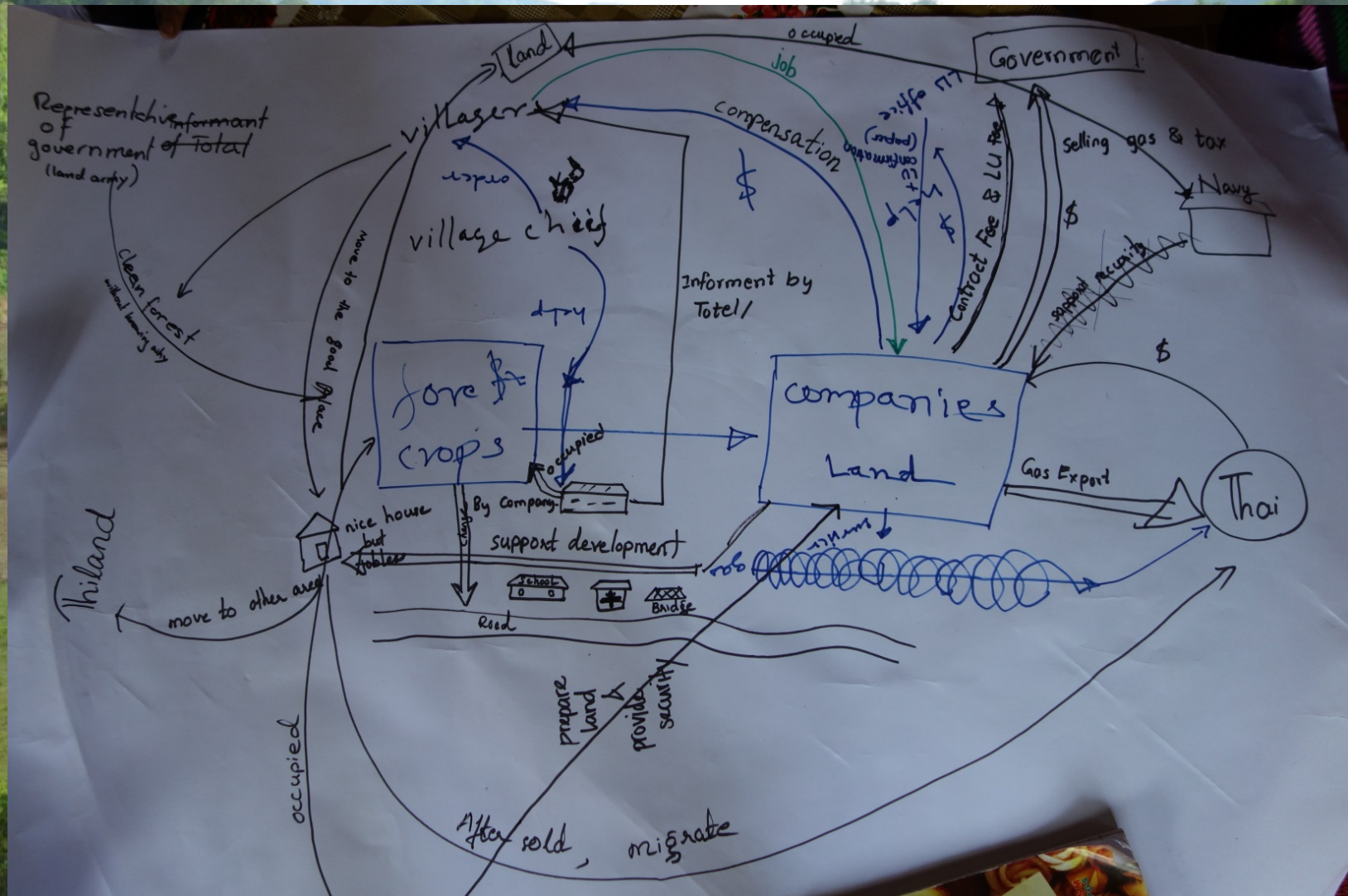
What land use changes take place?

What are causes and consequences?

How might a more sustainable future look like?

How could existing governance structures be transformed?

How can this landscape be managed for sustainable provisioning of ecosystem services and poverty alleviation?



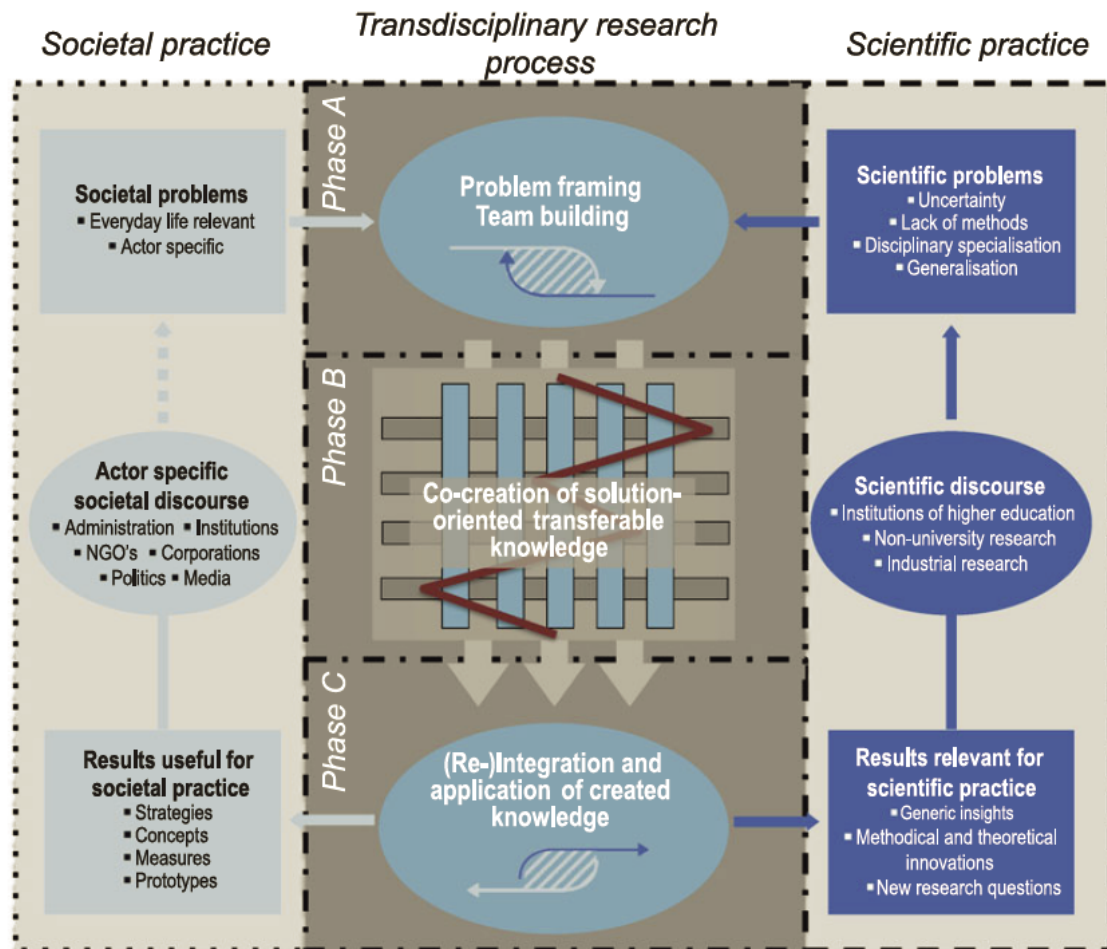
What Transdisciplinary Research is?

>Transdisciplinary research aims at transgressing boundaries between scientific disciplines and between science and practice in order develop knowledge that can help to solve, mitigate or prevent societal problems related to sustainable development

- Orientation to **life-world issues**
- Orientation to **the common good** (intra- and intergenerational justice)
- Interdisciplinarity** for accommodating complexity
- Integration of different perspectives** (incl. non-academic knowledge) for valuing distinct knowledge and values, and addressing the contested nature of many life-world issues
- Production of systems, target, and transformation knowledge**
- Science as part of a social learning process**

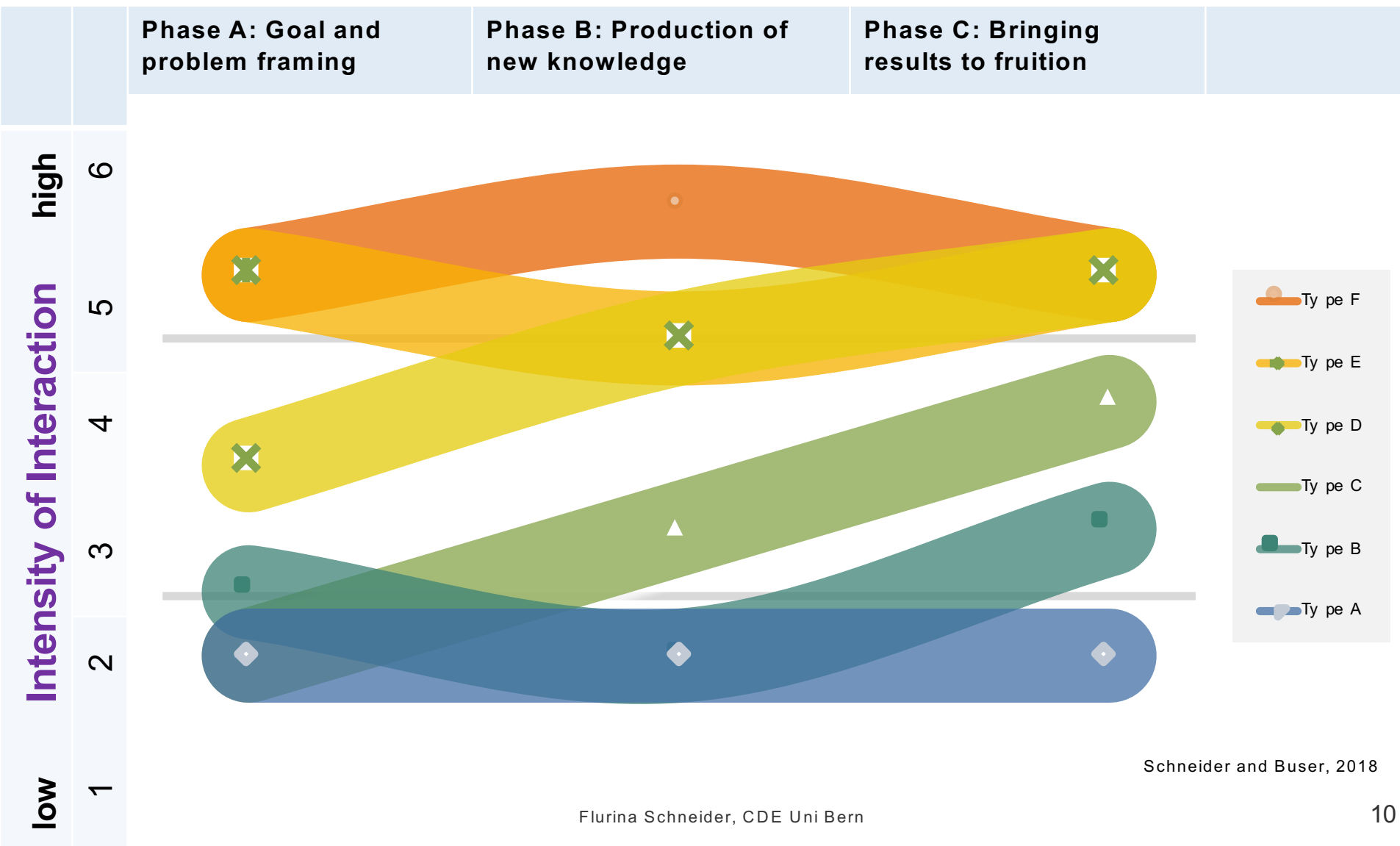
Schneider (2015), Pohl and Hirsch Hadorn (2007),
Rist et al. (2007)

The Process of Transdisciplinary Research



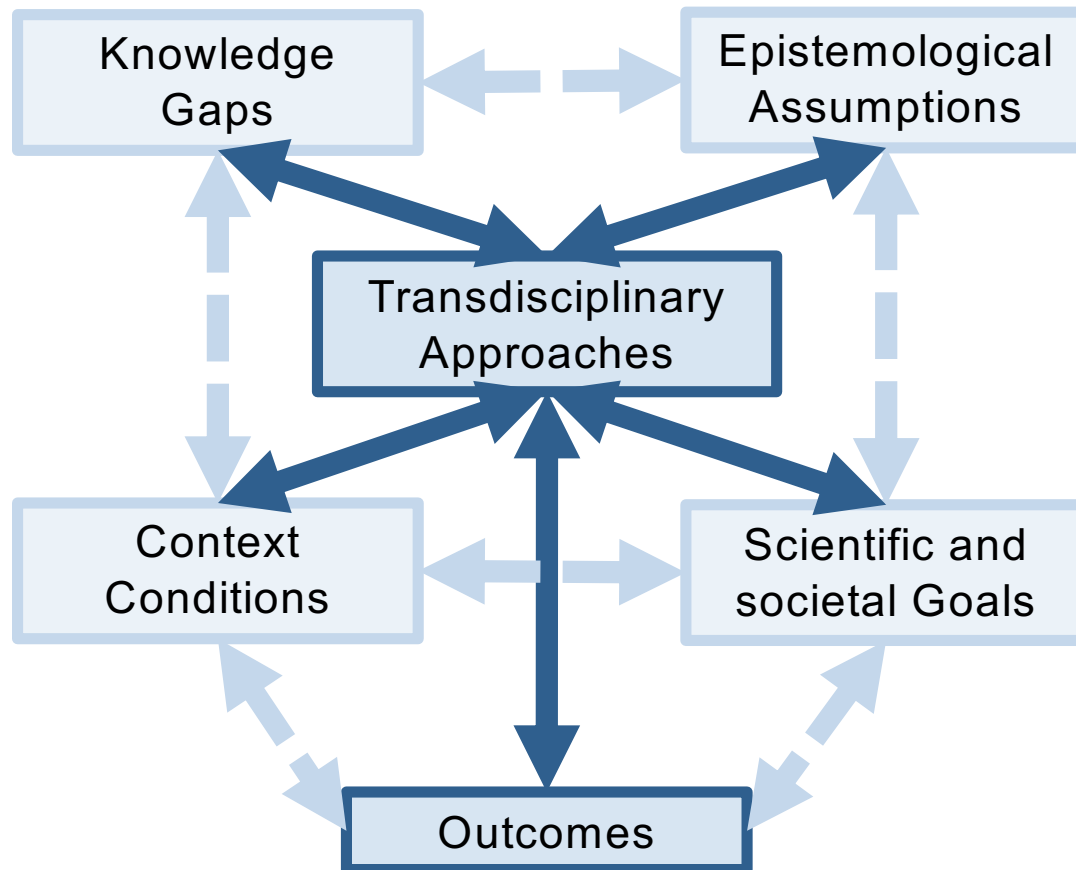
(Lang et al 2012)

Different Degrees of Stakeholder Interactions



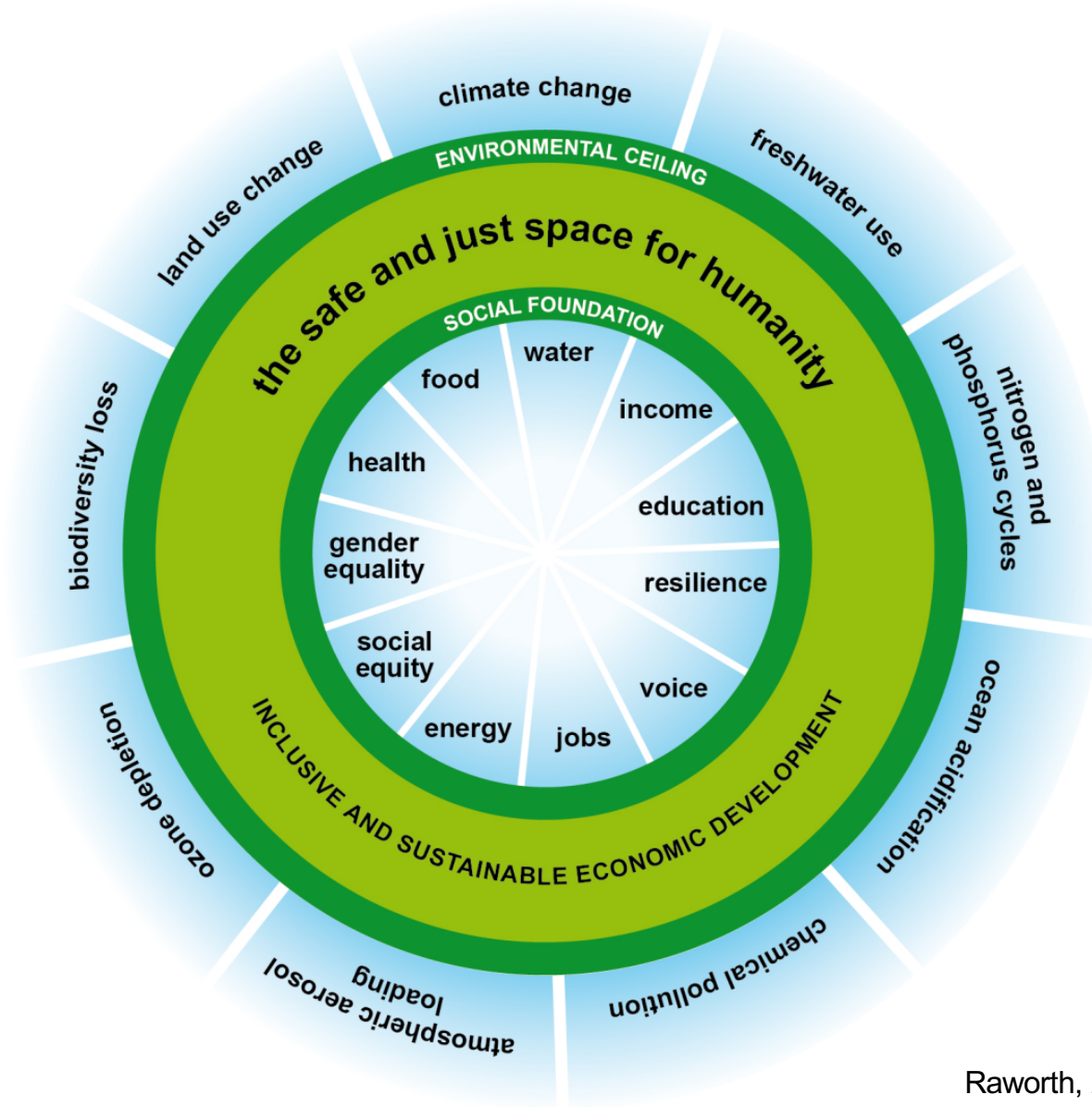
Schneider and Buser, 2018

New Framework for Identification of Promising Transdisciplinary Approaches



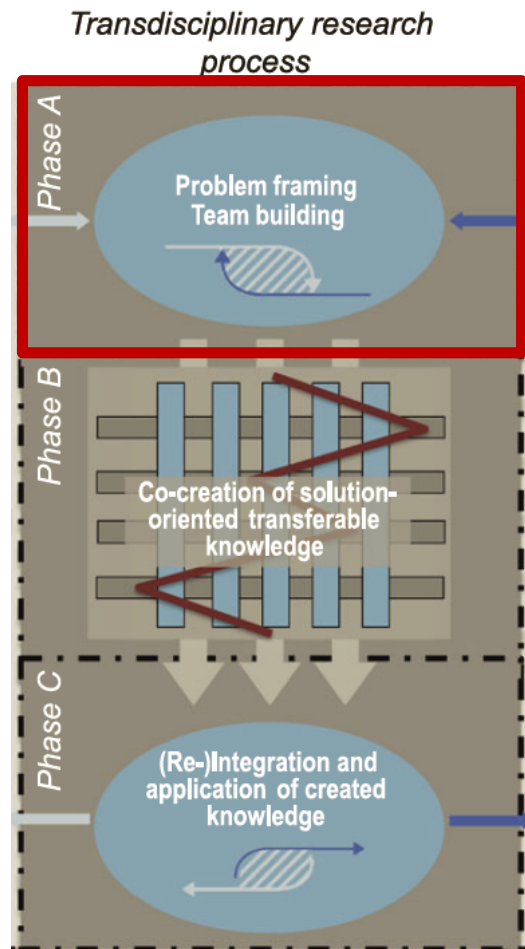
Thank you!





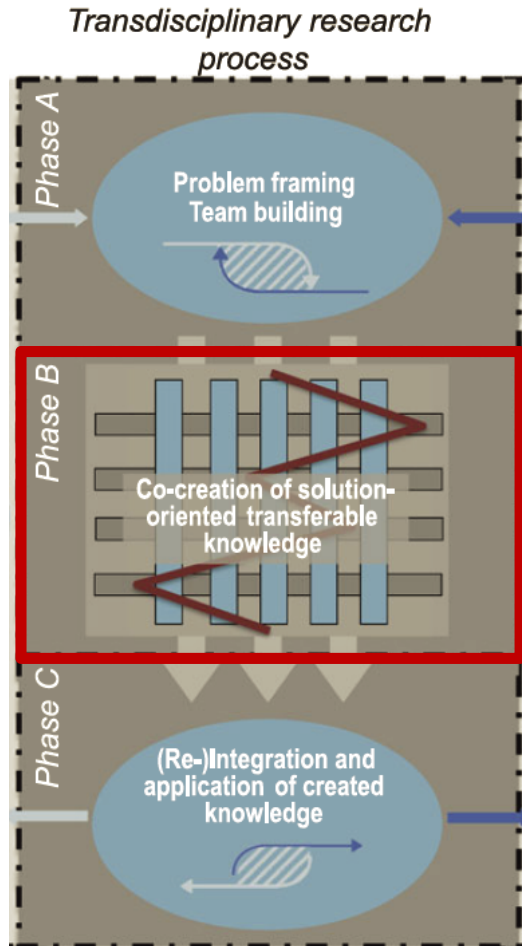
Raworth, 2012

Key Tasks per Phase (Phase A)



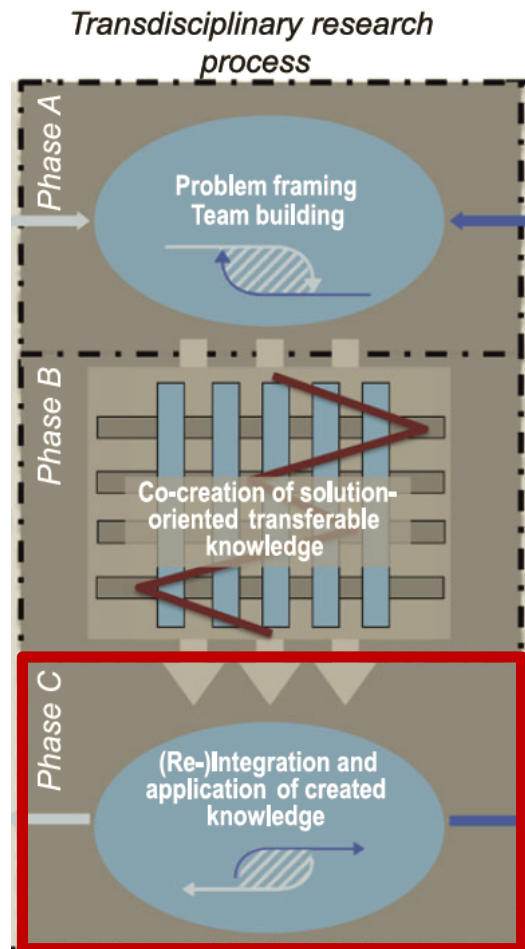
- > Actor and context analysis to find relevant stakeholders
- > Create joint understanding and definition of the life-world problems and goals to be addressed
- > Collaboratively define research objectives and questions (according the life-world goals and scientific novelty)
- > Build a collaborative research team
- > Design a methodological framework for co-production of knowledge

Key Tasks per Phase (Phase B)



- > Bringing scientists with different background and stakeholders together in a structured way to reach the project goals
- > Apply and adjust methods for co-production of knowledge
- > Develop bridging concepts/boundary objects that are tangible for all actors involved
- > Enhance competences for inter- and transdisciplinary co-production of knowledge
- > Carefully prepare and facilitate workshops
- > Assign and support appropriate roles for practitioners and researchers

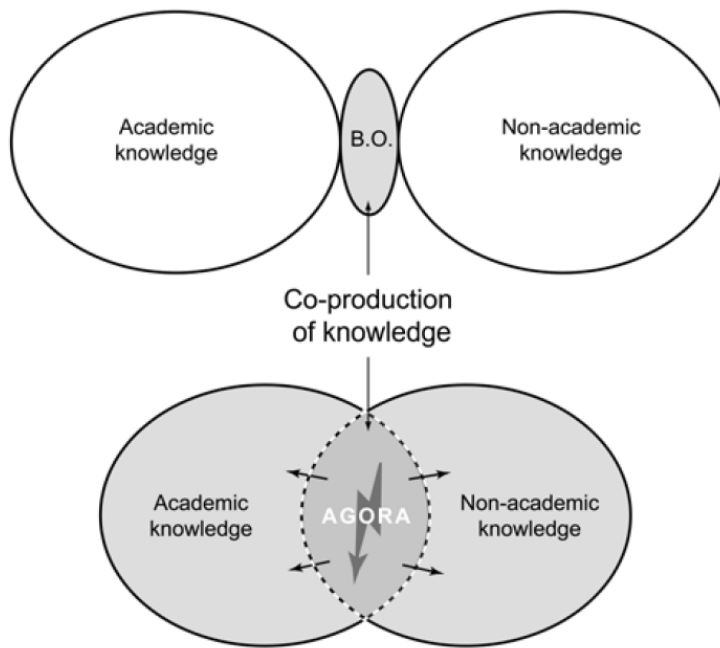
Key Tasks per Phase (Phase C)



- > Integrate results to resolve or mitigate the problem addressed
- > Integrate the results into the existing scientific body of knowledge
- > Co-produce targeted products for science, policy and practitioners
- > Think about follow up projects/organizations/platforms to build long term cooperation and societal learning

Different Approaches of Co-Production of Knowledge

Example



Boundary organizations

Transdisciplinary research

Pohl et al. 2010